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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/765,885

01/29/2004

Nobukazu Suzuki

03500.017861.

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7590

05/06/2010

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EXAMINER

ZHU, RICHARD Z

ART UNIT

PAPER NUMBER

2625

MAIL DATE

DELIVERY MODE

05/06/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/765,885	<b>Applicant(s)</b> SUZUKI, NOBUKAZU	
	<b>Examiner</b> RICHARD Z. ZHU	<b>Art Unit</b> 2625	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 April 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 15-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/01/2010 has been entered.

***Response to Applicant's Arguments***

2. **In response to** "The Advisory Action alleges, on page 2, that Robar et al. discloses that images comprising at least four films 12 is displayed as a single image in DICOM format on a suitable monitor. Applicant respectfully disagrees. As discussed above each film image is separated from the single-scanned image, and separately processed. Therefore, because the images are separated and separately processed, Applicant submits that contrary to the Advisory Action, the images (films) are not displayed "simultaneously." ".

**Robar** discloses (Col 6, Row 17 – Col 7, Row 9) scanning an image comprising at least four film, a processor driven by software instructions operated on said image by extracting each of the four films to be process independently so that individual images can be conveniently manipulated (Col 6, Rows 25-29). The manipulation **Robar** refers to involves

rotating and flipping of said films separately to set the respective films in a proper orientation (**Col 6, Row 66 – Col 7, Row 9**). Thereafter, the films are converted into DICOMM format to be store or display on a suitable monitor (**Col 7, Row 53-59**). While *Robar* does not specifically dictate how the films can be display in, however, there are only two predictable possibilities:

1. Display singularly film by film or
2. Display the scan image with plurality of films simultaneously.

In light of Fig 6, it is more predictable for one of ordinary skill in the art at the time of the invention to deduce that scenario 2 would be display on a suitable monitor. Thus, *Robar* predictably teaches the limitation "simultaneously display a plurality of films". To strengthen the case of prima facie obviousness, the examiner is introducing a new reference that explicitly dictates the scenario where multiple scanned film images are displayed simultaneously.

3. **In response to "** Robar et al. does not disclose that images of the films 12 scanned by the scanner 20 are displayed on a monitor. On the contrary, as Applicant understands, Robar et al. only discloses that dose data, derived from the analysis of the scanned films is displayed".

It is a tenant of image processing when raw analog RGB or CMYK signals are converted into digital format, said raw representation of the original signals are manipulated into a format that is compatible with an apparatus that is processing it on the basis of a digital analysis of the scanned films; the most famous examples being JPEG, JPG, TIFF et al. Here, the digital format is the closest approximation digitally possible to represent the original

analog signal but it is not the original signal. DICOMM is no different than JPEG, JPG, TIFF in principle because it merely digitally process the original analog signal into a first digital representation (**Fig 6**) and thereafter digitally manipulate it into dosage data ; the dosage data being another variant of digital manipulation in addition to JPEG, JPG, and TIFF.

If the applicant's argument stands, then neither is applicant's invention displaying the plurality of image signals on one display screen because it displays a digital approximation and thus manipulation of the scanned film derived from the analysis of scanned films (**Fig 2, A/D28 and Image Processing Means 29 of applicant's specification**) rather than the original raw signal itself.

Therefore, it is merely a matter of design choice to one of ordinary skill in the art to display the image in whatever digital representation one pleases, be it DICOMM, JPG, JPEG, or TIFF.

Lastly, **Dow** suggested that thumbnail type displays are well known in the art. In light of what is already taught by **Robar** (**Fig 6, where image data is not in DICOMM format**), one of ordinary skill in the art could predictable modify **Robar** to display the following:

1. Display images as shown in Fig 6 in thumbnails or
2. Display dosage images derive from Fig 6 in thumbnails.

Thus, the applied combination would predictably and obviously arrive at the same configuration as required by the claims.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6 and 15 are under 35 USC 103 (a) over ***Robar et al. (US 6826313 B2)*** in view of ***Yoshida (US 6178005 B1)*** and ***Dow et al. (US 6784904 B2)*** as well as ***Parulski et al. (US 5414811 A)*** and knowledge well known in the art.

**Regarding the system of Claim 15 and therefore method of Claim 1, *Robar*** discloses a system for reading a plurality of film originals (**Fig 2**), which are placed on an original support of an image reading apparatus (**Fig 2, Flat bed scanner 20 and see Col 6, Rows 7-10, original support being bed of the flatbed scanner**) and for displaying the plurality of film originals on a monitor of a computer connected to the image reading apparatus (**Fig 2, Computer 22 is connected to Flatbed Scanner 20 and has a monitor, images are displayed according to Fig 6**), the system comprising:

an image reader for reading each of the plurality of film originals placed on the original support, identifying a number of frames of film originals simultaneously present on the original support, and for cutting out image areas for each of the frames of film originals to generate a plurality of image signals (**Fig 2, Scanner 20 + Computer 22 and see Col 6, Rows 1-16, simultaneously reading or identifying a plurality of film originals so as to generate the image signals for displaying according to Fig 6**);

a placement orientation detector for detecting placement orientation for each of the film original as to whether it is landscape or portrait, based on edge information of the image signal generated by said image reader (**Col 6, Rows 17-65, software in computer 22 determines the respective orientations of the scanned films by determining edges of respective films in vertical and horizontal positions to extract image areas comprising each of the films**) corresponding to each film original (**Col 6, Rows 27-28, “separately processed”**);

an image signal rotator for rotating the image signal (**Fig 7 and see Col 6, Row 66 – Col 7, Row 8, software in the computer rotates image signal to properly orientations**);

a read image signal display for displaying the plurality of read image signals on one display screen of the monitor unit (**Fig 6 and see Col 6, Rows 10-12, computer 22 as depicted has a monitor and images are displayed according to Fig 6. Obviously if not inherently, the monitor displays the image in accordance to Fig 6**).

*Robar* does not disclose:

placement orientation detection is perform base on lengths in horizontal and vertical directions of the image signal generated;

rotating image signal to be in a landscape placement when the placement orientation detected is different from landscape placement.

*Yoshida* discloses a system comprising:

an image reader for reading each of the images of the originals placed on the original support to generate image signals (**Fig 1 and see Col 3, Rows 28-34, reading circuit 10**);

a placement orientation detector for detecting placement orientation of the original as to whether it is landscape or portrait (**Col 5, Rows 6-15, a control circuit 36 incorporating a control program to manage the overall operations of the system to include determining whether received image signal is landscape or portrait; see for example Fig 5, S70 and S82**), based on lengths in horizontal and vertical directions of the image signal generated by said image reader (**Col 5, Rows 39-44 and see for examples Col 6, Rows 17-22 and Rows 64-67, a check to determine size and orientation of the image on the basis of the image signal as described by main scan length and sub-scanning length**);

an image signal rotator for rotating the image signal to be in a landscape placement (**Col 5, Rows 6-15, a control circuit 36 and see Fig 1, Length to Width Conversion Circuit 30, Col 4, Rows 10-18. To rotate an image by 90°**), when the placement orientation of the original detected by said placement orientation detector is different from the landscape placement (**Fig 9, S212 and S214, when it is detected that placement orientation is portrait instead of landscape, S226, the image is length to width converted or rotated by 90° and rotated into landscape placement. See Col 1, Rows 32-35**).

It would've been obvious to one of ordinary skill in the art at the time of the invention to modify the computer 22 of *Robar* to perform orientation and rotation such that landscape placement of film images are always generated and displayed in order to provide an image processing apparatus having improved ease of operation (*Yoshida*, **Col 2, Rows 10-12**) because it provides a standardized format of orientation placement that is automatically and conveniently reproduced. Further, *Yoshida* suggests that the step of placement orientation



and rotation can be performed in a facsimile machine or image reader, it therefore suggests an obvious and predictable arrangement in which an image reader can generate the signal in landscape and thereafter transmit it to an external apparatus such as computer 22.

The combination does not suggest that the image is displayed in thumbnail format.

*Dow* discloses a system (**Fig 1 A-D**) for displaying image information, wherein when image information of a plurality of originals that is different in its horizontal and vertical lengths placed on an original support is read by an image reading apparatus (**Fig 8C and 8F, the image captured is different in its horizontal length and vertical length**) and said read image is displayed on a display apparatus in a thumbnail display form (**Fig 2, Thumbnail View Module 82 and see Col 7, Rows 7-8**).

Given the fact that displaying images in thumbnail format on a display is well known and *Robar*'s explicit requirement that film images be organized in a predetermined sequence (**Col 6, Rows 18-20**), one of ordinary skill in the art would've modified computer 22 of *Robar* to display thumbnail images in the predetermined sequence to take full advantage of the fact that thumbnails are advantageous in helping a user to visually recognize and organizing images on the monitor unit.

Although the combination does not suggest films are mounted on a mount, in light of applicant's admission that it is well known for a film slide to be mounted on a mount on a scanner (**Page 2, 1<sup>st</sup> paragraph of applicant specification**), the examiner is taking official notice of the fact that film mounts are well known and therefore one of ordinary skill in the art would've employed it when simultaneously scanning a plurality of films on a scanner bed.

Lastly, although **Robar** does not dictate simultaneously displaying plurality of image signals, however, it predictable teaches the feature and thus the feature is obvious in view of **Robar** as asserted by the examiner in the response to applicant's argument section above.

Further, **Parulski** discloses an image processing system for displaying digitized images on a screen (**Abstract and see Fig 1, Work Station**) wherein a film scanner reads a plurality of film originals (**Fig 2**) and simultaneously displaying the plurality of image signals representing the film originals on one display screen in landscape displacement (**Figs 6-7**).

One of ordinary skill in the art at the time of the invention would've been motivated to modify **Robar** to display either purely digital representation of the plurality of film originals (**Fig 6**) or dosage data that is derived thereof in the format as taught by **Parulski** because it gives an operator the flexibility to demand a monitor to display said films in a format most desired by said operator.

**Regarding Claims 2-6**, the combined teachings do not disclose providing an option to an user to make optionally rotations with respect to orientation. That is, it does not provide an user friendly interface that allows an user to perform various tasks optionally.

**Regarding Claim 2**, **Dow** discloses a method of displaying a read image signal further comprising a display orientation setting step (**Fig 1A, Rotation Button 32**) of setting said predetermined orientation (**Col 7, Rows 60-63**).

**Regarding Claim 3**, **Dow** discloses a method of displaying a plurality of read image signals further comprising

a second image signal rotation step of rotating said plurality of image signals by a predetermined angle (**Col 7, Rows 53-63, activation of rotation button will rotate said image signal by a predetermined angle**) irrespective of the placement orientation detected in said placement orientation detection step (**Col 7, Rows 53-57, the orientation detected in the default state is the placement orientation**), and

a second display orientation setting step of setting whether the images are to be displayed in the orientation aligned with said predetermined orientation or the images rotated by said second image signal rotation step is to be displayed (**If the user chooses to activate rotation button 32, the image that is rotated by 90° relative to the placement orientation will be displayed by display 24**).

**Regarding Claim 4, Dow** discloses a method of displaying a read image signal wherein said second display orientation setting step can optionally set to display the image in the orientation detected in the placement orientation detection step (**Col 7, Rows 53-63, the user chooses not to activate the rotate button 32, the image will be displayed in an orientation that is originally detected when the image is initially captured**).

**Regarding Claim 5, Dow** discloses a method of displaying a read image signal wherein said second image signal rotation step further includes upon rotating the image signal by the predetermined angle, correcting its little inclination with respect to a vertical or horizontal direction (**Col 7, Rows 53-63, if the user chooses to activate the rotate button 32, the image will be displayed in an orientation that is rotated by a predetermined angle relative to the orientation originally detected when the image is initially captured**).

**This is accomplished by correcting the inclination of the image signal with respect to a vertical or horizontal direction).**

**Regarding Claim 6, *Dow*** discloses a method of displaying a read image signal wherein in said image reading step, a plurality of originals placed on the original support are read (**scanning a plurality of original is determine by the user in accordance to user defined necessity**) and the other steps are performed on an image signal obtained from each of the originals individually (**Col 7, Row 63 – Col 8, Row 6, other steps includes magnifying, capture, send, delete, attach, detach and etc**).

Given the advantages of *Dow's* Device, it would've been obvious to one of ordinary skill in the art at the time of the invention to modify the display interface of the combined teachings to include features of *Dow* as cited in Claims 2-6 whereas the motivation would've been to presents a novel user interface which makes the menu/image navigation user interface and method a solution in devices with limited resources which need to be able to navigate among multiple images arranged in different orientations (***Dow*, Abstract**).

**Regarding Claims 16-17, *Robar*** discloses wherein the plurality of image signals displayed on the monitor unit are images of the plurality of film originals in dosage representation (**Col 7, Rows 53-61**)

***Parulski*** suggest wherein the plurality of image signals displayed on the monitor unit are images of the plurality of film originals (**Figs 5-8**).

Thus, the combination would predictably result in simultaneously displaying the films as is without DICOMM manipulation according to Fig 6 of *Robar* or with DICOMM manipulation.

*Conclusion*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Richard Z. Zhu whose telephone number is 571-270-1587 or examiner's supervisor King Y. Poon whose telephone number is 571-272-7440. Examiner Richard Zhu can normally be reached on Monday through Thursday, 0630 - 1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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